

CLAIMS OF THE PATENT

Claim of the invention to provide a totally new procedure of three complex phases of the surveying, analyzing and repairing/renovation of a combination asphalt/concrete highway road surface, airport runway, race track, parking lot, etc.

Claim of the invention to first provide a means of surveying of the road and placing marking/positioning fixtures that will be used later during the later phases of the analysis of the surface for defects and actual road surface repair and renovation.

Claim of the invention is to use these marking/positioning fixtures placed during phase one to guide the invention and it's individual repair modules to the surface areas in need of repair.

Claim of the invention to use a modular radar/seismic detection system of existing technology placed in one of the standard sized module slots. This detection system will be capable of appraising all types of transportation surfaces, including highway asphalt/concrete road surfaces (including bridges), airport runways, and parking lot surfaces.

Claim of the invention is to use this analysis for the purpose of assessing the magnitude of maintenance required, the preparation requirements needed.

Claim of the invention is to input of the analysis data of the defects in the roadbed into the central computer to be used during phase three to repair of the roadbed, airport runway, parking lot, etc.

Claim of the invention is to provide a process to review the analysis data, gathered during phase two, by the decision makers, e.g., civil engineers, material scientists, etc., as to how severe the road surface defect's are.

Claim of the invention is to have the decision-maker's analyze/ diagram the proposed solution, after this analysis, the information is loaded into the central computer to be used during the actual repair.

Claim of the invention is for the decision makers to map out, that is, diagram, the regions in need of repair, input these diagrams, layouts into the central computer. The central computer will guide the repair machine and position it's modules to the areas in need of repair.

Claim of the invention is for the decision makers to determine: how deep to extract the openings, how wide to saw, what material to use, etc., with respect to every area/section of the surface needing repair.

Claim of the invention of using individual robotic repair modules, placed in equal sized slots, to automatically saw, fill, pack, level each of the sections of road surface in need of repair.

Claim of the invention of having all of the robotic repair functions fitting within the same size slots, some larger modules will require two slots. The modules can be moved to different slots within the machine depending of the nature of the repair needed.

Claim of the invention to have the complex, central computer keep track of the position of each repair module if it is moved to another slot within the machine.

Claim of the invention, which is much more intricate, complicated than existing road repair equipment and provides numerous multifaceted functions within one machine.

ABSTRACT OF THE DISCLOSURE

The invention relates to a combination asphalt/concrete surface repair machine. The machine is a direction-finding, wheeled, transportable vehicle, which is a self-regulating, repair contraption, controlled by a complex central computer. The machine is capable of being attached to and hauled by another faster vehicle (i.e., truck) if necessary.

This machine is guided by a positioning device, which uses advanced radar and laser technology to place the machine above each position of the road surface to be repaired. It uses seismic or radar analyzer technology to determine road surface repair requirements.

The machine uses data from the seismic or radar analyzer to repair the road surface by the use of robotic modules within the machine. This technology can also be used to build new roads, racetracks, airport runways, sidewalks, driveways, parking lots, etc.

My invention is a very complex machine and provides multifaceted construction or repair functions within one machine.